

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2005/003265

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C12Q1/68 G01N33/50

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C12Q G01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, EMBASE, MEDLINE, WPI Data, PAJ, Sequence Search

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	HOLNESS M J ET AL: "Regulation of pyruvate dehydrogenase complex activity by reversible phosphorylation." BIOCHEMICAL SOCIETY TRANSACTIONS, vol. 31, no. 6, December 2003 (2003-12), pages 1143-1151, XP002337019 ISSN: 0300-5127 page 1148, right-hand column - page 1149 ----- -/-	1-9, 12-17, 20-22

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- *&* document member of the same patent family

Date of the actual completion of the international search

8 August 2005

Date of mailing of the international search report

08/09/2005

Name and mailing address of the ISA

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2005/003265

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>HUANG BOLI ET AL: "Regulation of pyruvate dehydrogenase kinase expression by peroxisome proliferator-activated receptor-alpha ligands, glucocorticoids, and insulin" DIABETES, vol. 51, no. 2, February 2002 (2002-02), pages 276-283, XP002337020 ISSN: 0012-1797 the whole document</p>	1-9, 12-17, 20-22
Y	<p>----- DATABASE BIOSIS 'Online! BIOSCIENCES INFORMATION SERVICE, PHILADELPHIA, PA, US; 7 March 2001 (2001-03-07), DONG JIANCHUN ET AL: "Unique properties of human pyruvate dehydrogenase kinase isoform 4 (PDK4)" XP002337025 Database accession no. PREV200100245200 abstract & FASEB JOURNAL, vol. 15, no. 4, 7 March 2001 (2001-03-07), page A197, ANNUAL MEETING OF THE FEDERATION OF AMERICAN SOCIETIES FOR EXPERIMENTAL BIOLOGY ON EXPERIMENTAL BIOL; ORLANDO, FLORIDA, USA; MARCH 31-APRIL 04, 2001 ISSN: 0892-6638</p>	1-9, 12-17, 20-22
Y	<p>----- WU PENGFEI ET AL: "Mechanism responsible for inactivation of skeletal muscle pyruvate dehydrogenase complex in starvation and diabetes" DIABETES, vol. 48, no. 8, August 1999 (1999-08), pages 1593-1599, XP002337021 ISSN: 0012-1797 the whole document</p>	1-9, 12-17, 20-22
Y	<p>----- DATABASE BIOSIS 'Online! BIOSCIENCES INFORMATION SERVICE, PHILADELPHIA, PA, US; 2003, MINNICK DANA ET AL: "Correlation of change in gene expression from skeletal muscle and adipose tissue with efficacy in obese rhesus monkeys treated with a PPARpan agonist." XP002337026 Database accession no. PREV200300459328 abstract</p> <p style="text-align: center;">-/-</p>	1-9, 12-17, 20-22

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>& DIABETES, vol. 52, no. Supplement 1, 2003, page A127, 63RD SCIENTIFIC SESSIONS OF THE AMERICAN DIABETES ASSOCIATION; NEW ORLEANS, LA, USA; JUNE 13-17, 2003 ISSN: 0012-1797</p> <p>-----</p> <p>HOLNESS MARK J ET AL: "Up-regulation of pyruvate dehydrogenase kinase isoform 4 (PDK4) protein expression in oxidative skeletal muscle does not require the obligatory participation of peroxisome-proliferator-activated receptor alpha (PPARalpha)" BIOCHEMICAL JOURNAL, vol. 366, no. 3, 15 September 2002 (2002-09-15), pages 839-846, XP002337022 ISSN: 0264-6021 the whole document</p> <p>-----</p>	<p>1-9, 12-17, 20-22</p>
P, A	<p>WO 2004/027376 A (BRISTOL-MYERS SQUIBB COMPANY; MUKHERJEE, RANJAN; LIU, PHILLIP; HUBER,) 1 April 2004 (2004-04-01) the whole document</p> <p>-----</p>	<p>1</p>

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.1

Although claims 6, 7, 14, and 15 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.

Continuation of Box II.2

Claims Nos.: 10,11,18,19

Present claims 10,11,18, and 19 relate to a compounds defined by reference to a desirable characteristic or property, namely having PPARdelta modulating activity.

The claims cover all compounds having this characteristic or property, whereas the application provides support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT for only a very limited number of such compounds. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the claimed scope is impossible. Independent of the above reasoning, the claims also lack clarity (Article 6 PCT). An attempt is made to define the compound by reference to a result to be achieved. Again, this lack of clarity in the present case is such as to render a meaningful search over the claimed scope impossible. Consequently, no search has been carried out for 10,11,18, and 19.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2005/003265

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
Although claims 6, 7, 14, and 15 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☒ Claims Nos.: 10, 11, 18, 19
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2005/003265

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2004027376 A	01-04-2004	AU 2003267218 A1	08-04-2004
		EP 1540000 A2	15-06-2005
		WO 2004027376 A2	01-04-2004
		US 2004106135 A1	03-06-2004